ECONOMIC IMPACT OF THE SOUTH CAROLINA MEDICAID FOR THE WORKING DISABLED PROGRAM

Report funded by
CMS Medicaid Infrastructure Grant Program,
CFDA Number 93.768

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May 2006

I. INTRODUCTION

The Medicaid for the Working Disabled program in South Carolina is designed to allow disabled individuals to return to work without losing health care coverage. Authorized by the Balanced Budget Act of 1997, South Carolina implemented its program in 1998. The program extends Medicaid coverage to working individuals with a disability and family income below 250 percent of the Federal Poverty Level (FPL). South Carolina's program has several features that make it unique when compared to other states with similar programs. The program is very attractive to potential participants because it is one of the few states that does not charge a premium for enrollment but South Carolina also has the highest earnings minimum for program participants ($810). The result is a very small program whose enrollees have the highest average earnings compared to other states. While the small size of the program in South Carolina limits its overall economic impact on the state, the high earnings of its participants generates a significant flow of economic activity.

This report analyzes the economic impact of the program in South Carolina. The data on enrollment and participant characteristics used in this report are taken from *Understanding Trends and Participant Characteristics of the Medicaid Buy-In Program, 2002-2004*. All enrollment data and dollar amounts are for 2004.

II. ECONOMIC IMPACT OF ENROLLMENT IN THE MEDICAID FOR THE WORKING DISABLED PROGRAM IN SOUTH CAROLINA

The purpose of the Medicaid for the Working Disabled program is to remove a barrier to employment for individuals with disabilities who refrain from working to maintain access to health insurance. These individuals may be out of the labor force or may be working but constraining earnings to stay qualified for public insurance. When these individuals enroll in the program and begin working (or working more), this benefits the state due to the increase in economic activity and tax revenues. On the other hand, some new participants may already be working and join the program to obtain Medicaid thereby increasing state health care expenditures without directly increasing state output. The overall economic impact to the state will depend on how much employment increases and whether the program attracts some individuals who would not otherwise receive public insurance resulting in new insurance expenditures for the state. Thus, to calculate the economic impact of the Medicaid for the Working Disabled we must consider both pathways—increased work effort and increased Medicaid expenditures—by which South Carolina's economy is affected by increased participation.

Currently 79 percent of program participants were enrolled in Medicaid at the time they joined the Medicaid for the Working Disabled Program. Thus, for 79 percent of program participants, there is no change in state Medicaid expenditures at the margin. For the

remaining 21 percent, there is an increase in South Carolina's Medicaid expenditures and we consider the economic impact of these new expenditures below.

Unfortunately we do not have similar data available on the employment history of individuals currently enrolled in the program that would allow direct calculation of the increase in employment due to the program. Some individuals may be unemployed prior to joining the program, but others may already be working under existing programs that allow individuals to receive Medicaid during a transition period. For example, recipients of Supplemental Social Security Income who are working may maintain Medicaid eligibility on the 1619(b) program. Enrolling in the Medicaid for the Working Disabled program will allow the individual to earn more without losing health care but there will be only a small increase in work effort. Another example is recipients of Social Security Disability Income who are eligible for Medicare after two years of disability and can maintain Medicare coverage after resuming work for an extended period. In 2004, 40 percent of participants in South Carolina's working disabled program were dually eligible for Medicare and Medicaid at the time of enrolling in the program and 26 percent of new enrollees were recipients of SSDI benefits. Both SSI and SSDI recipients may increase earnings after enrolling but the effect is likely to be small. Because we cannot program's impact on earnings, we consider a range of possible effects from increased work effort. Our preferred estimate, as discussed below, conservatively assumes only a 20 percent increase in earnings on average from enrolling in the program.

Economic Impact of Increased Employment

Average monthly earnings of participants in the Buy-In Program were $1,531 in the Fourth Quarter of 2004. This was by far the highest average monthly earnings reported for all 27 participating states; yet, South Carolina ranks only 22 of 27 when average monthly earnings of the overall employed population is compared (Black and Ireys, 2006). South Carolina's higher average earnings reflect several factors. First, average earnings were obtained from records gathered from the state's unemployment insurance (UI) system. This system does not include earnings from self-employment, small farms, Armed Services, and a few other employers. South Carolina ranks fourth in terms of percentage of participants reporting UI earnings with 76 percent reporting earnings. South Carolina redetermines eligibility on a monthly rather than a semi-annual or annual basis which may lead to greater accuracy in earnings report. Another important difference is that South Carolina has the highest earnings minimum for program participants ($810). South Carolina also does not have a grace period that extends Medicaid benefits even if employment is lost. Because non-UI earnings do not appear to be reliably reported, we restrict attention to the average UI earnings in the analysis below.

As noted above, we do not have the employment history of the individuals in the program and so cannot calculate how much of these earnings are due to enrolling in the program. That is, we do not know how much these same individuals might have worked and earned had they not participated in the Medicaid for the Working Disabled Program. It is assumed that the increase in earnings due to increased work effort of new participants is only 20 percent of the observed earnings of current participants. That is, we assume that

the net increase in earnings is only 0.20*$1,531 = $306 per month or $3,674 per participant per year. This is a fairly small increase in work effort on average and is a conservative estimate of actual increases in earnings given South Carolina's earnings minimum for participants. Individuals who cannot earn $810 per month cannot participate and there is no grace period if a job is lost during which earnings would be zero. To assess the effects of the assumption about work effort, we also present the limiting cases in which we assume 100 percent or 0 percent of the earnings of current participants can be attributed to program participation.

For individuals who begin working or increase earnings in response to the program's incentives, there is increased tax revenue earned by the state on these additional earnings. To calculate the addition to state tax revenue from increased earnings, the estimated tax burden for South Carolina (9.7 percent, Source: **www.taxfoundation.org**) is applied to the estimated increase in earnings due to participation in the program. Applying South Carolina's estimated tax burden, the estimated total state tax revenue per participant per year due to participation is 0.097*$3,674 = $356.

In addition to the direct effect of increased employment and earnings on the state, there are indirect effects and induced effects as well. A newly employed person will spend some of their earnings on housing, transportation, food and other goods and services produced in the states, which will lead to a ripple effect throughout the state economy. The additional revenue earned by restaurants and grocery stores, for example, will in turn lead to greater revenue for those industries that supply the retail restaurants and grocery stores. To calculate the full increase in business activity from an increase in employment, we must also calculate these indirect effects, that is, the impacts on the first-tier suppliers to retail trade, on their employees and then on their suppliers. Thus, this calculation of the full economic impact of additional employment requires detailed information about intraindustry linkages in the state of South Carolina. There is one more source of business activity that must be included: induced effects. When the restaurants and their suppliers and their suppliers' suppliers increase their activity, they will also increase employment in order to meet the new demand. This increase in employment leads to further new spending at the retail level that again will ripple through the state's economy. These successive rounds of indirect and induced impacts become smaller and smaller each time as some of the additional earnings and revenues are saved, taxed, or spent outside the state.

An economic multiplier from an input-output model is the appropriate tool for calculating the total change in business activity due to an initial increase in employment. This input-output model contains information about the economic links between industries and allows us to estimate the full range of indirect and induced impacts on South Carolina's economy. The multiplier used here is based on the modeling software *IMPLAN*® which has a detailed structural model of the South Carolina economy. These multipliers are shown in Table II.1.

To calculate the impact of $3,674 in new earnings, we first need to account for taxes (federal, state and local) as well as savings and out-of-state spending. Using a disposable

income factor of 0.89 and the fact that South Carolinians spend about 75.8 percent of disposable income on in-state businesses, the injection of new spending into the state is $2,479. This new spending by household leads to greater spending by businesses who will hire more resources and labor causing more spending and this process continues with successively smaller injections in each round. Adding up the total new spending, there will be $3,867 in increased sales to South Carolina businesses on average when a new enrollment in the Medicaid for the Working Disabled enables an individual to move from out of the labor force to employment.

Another way to measure this increase in economic impact is to look at employment in the state. The addition of $2,479 in new spending at the state will be met by additional employment. The estimated increase in employment is 0.042 persons employed in addition to the newly employed participant. There will also be additional earnings from the induced and indirect effects of new employment adding $$1,211 to state earnings. Thus, the total economic impact including direct and indirect effects of adding one new participant to the Medicaid for the Working Disabled Program (assuming this person increased work effort by 20 percent due to joining the program) is $3,867 in increased business activity, 0.242 new jobs, and $4,885 in new earnings that generate $474 annually in new tax revenue. These calculations are shown in Table II.1.

Economic Impact of Increased Medicaid Enrollment

Currently 79 percent of program participants were receiving Medicaid at the time of enrollment and the remaining 21 percent of program participants were new enrollees to Medicaid. For these 21 percent, there is a new state Medicaid expenditure. In addition to the state Medicaid expenditure, there is a Federal match. Every dollar spent on Medicaid by the state of South Carolina generates an additional $2.31 in Federal matching funds. To calculate the economic stimulus from this additional spending, we can calculate the direct, indirect, and induced effects that ripple through the economy from these additional expenditures. The direct effect results when providers in South Carolina receive additional income from treating patients that is then used to pay wages and buy supplies from vendors and employees. When vendors and employees spend their additional income on other goods, such as new cars, this touches off another round of increases in revenues and incomes that will largely be spent in the state.

The Medicaid multiplier for South Carolina allows us to calculate the full net benefit to state employment, income and output that results from the additional Federal spending. Given the average Medicaid beneficiary spends $1077 per member (in 2004 dollars) in South Carolina, this means that average annual Medicaid expenditure is $12,924 per member. Of the $12,924 expenditure, the state will spend $3,902 and the Federal government will spend $9,022. The Federal spending represents a new injection of spending in the state and as such it generates $14,242 in new output, $6,761 in new earnings, 0.25 new jobs, and $656 in new tax revenue. The net expenditure by the state is then $3,902 - $656 = $3,246 per new member annually when the increased tax collections are taken into account. See Table II.2 for these calculations.

Total Economic Impact

The total economic impact of the Medicaid for the Working Disabled program is the combined impact of the increased earnings of program participants and the new state and Federal spending on Medicaid for participants who were not already on Medicaid at the time of enrollment. As of December 2004 there were 52 enrollees in the program and 21 percent (11 individuals) were not enrolled in Medicaid at the time of enrollment. Because we do not directly observe the extent to which enrollees increase earnings in response to joining the program, we consider a range of possible earnings impacts that illustrates the bounds on the overall economic impact.

Beginning with the lower bound, we first consider what would happen if there were no change in earnings due to participating in the program. That is, we assume that 0 percent of the earnings observed for program participants can be attributed to participating in the program. In this extreme scenario, the only economic impact of the program comes from the addition to the Medicaid rolls. Since 21 percent of the 52 enrollees are new to Medicaid, there are 0.21*52 = 11 new enrollees. The average expenditure on Medicaid per member per year shown in Table II.2 is then multiplied by the number of new enrollees to give the total Medicaid expenditure on these new enrollees. We can also calculate the impact on state earnings, jobs and output using the per member per year impacts shown in Table II.2. These calculations are shown in Table II.3. The addition of 11 new members to Medicaid generates Federal matching expenditures that will create $222,781 in additional output in the state. There will be approximately 4 new jobs created with $105,758 in additional earnings. After factoring in tax revenues collected on the new earnings, net state spending will be $31,349.

At the other extreme, Table II.3 shows the economic impact of the Medicaid for the Working Disabled program is 100 percent of participant earnings are attributed to participating in the program. That would occur if all participants were unemployed prior to participating in the program. Although this scenario is unlikely, it serves to show the maximum possible economic impact of the program. If all of participant earnings can be attributed to the creation of the program, then the total additions to state output would be in excess of $1.2 million. Approximately 67 new jobs would be created (including the jobs of the 52 program participants) with earnings of over $1.3 million. The net change in state revenues would be $90,000 as tax revenues collected on additional earnings would exceed state share of expenditures on new enrollees to Medicaid.

Table II.3 also shows the conservative benchmark for program effects in which it is assumed that only 20 percent of the earnings of current participants can be attributed to program participation. This provides a conservative estimate of the overall impact of the program. Even if the program has only a small impact on participant earnings, there is still a substantial impact on state output, earnings and jobs. Over $400,000 in new output is created due to the additional earnings and the Federal matching of state Medicaid expenditures on the new enrollees. This is associated with 17 new jobs and over $350,000 in additional earnings. These increases in output, earnings and jobs come at a low total cost to the state. The total change cost of the program (net of increased tax revenue collections) is under $8,000.

Table II.3 also shows the break even point for the program in which the tax revenues collected on earnings just offset the state cost of new Medicaid enrollment. If just under 27 percent of the earnings of program participants can be attributed to joining the program, then new expenditures would just balance new tax revenues collected.

III. SUMMARY

The Medicaid for the Working Disabled program was developed to allow individuals with disabilities to increase employment without losing health insurance. These calculations show that if the Medicaid for the Working Disabled Program has even a modest impact on the employment of participants, there is little to no cost to the state from the program. Additionally, by increasing employment and taking advantage of Federal matching spending for Medicaid, the program generates additional state output, earnings and jobs. Using conservative estimates, the program generates 0ver $400,000 in new output, about 17 new jobs, and over $350,000 in additional earnings. These increases in output, earnings and jobs come at a cost of under $8,000 in net state expenditures. This report also shows that as the program goes forward, the greater the success at the program in achieving its goal of allowing individuals to work or work more without losing health insurance, the lower the overall cost of the program to the state and the greater the benefit in terms of the creating jobs and state economic activity.

IV. REFERENCES

Black, William E. and Henry T. Ireys. “Understanding Enrollment Trends and Participant Characteristics of the Medicaid Buy-In Program, 2003-2004.” Mathematica Policy Research. January 2006.

“The Cigarette Tax, the Federal Medicaid Match, and Economic Stimulus in South Carolina.” Report prepared for the South Carolina Hospital Association by the Moore School of Business Division of Research. January 2003.

TABLE II.1 THE ECONOMIC STIMULUS FROM ADDITIONAL EMPLOYMENT

Earnings of Program Participants

Monthly Earnings	Annual Earnings	After-tax Annual Income	In-state spending rate for disposable income
$1,531	$18,372	$16,351	$12,394

Multipliers: A dollar of additional in-state spending by households will lead to:

Additional Jobs Created from Multiplier Effect	0.00002
Additional Output	$1.56
Additional Earnings Created from Multiplier Effect	$0.49

Indirect and Induced Economic Impacts of Increase in Earnings due to Participation in Program

Portion of Participant Earnings Attributed to Enrolling	Additional Jobs Created from Multiplier Effect	Total New Jobs	Additional Earnings Created from Multiplier Effect	Total New Earnings	Total New Output	Total New Tax Revenue
0%	0.000	0	$0	$0	$0	$0
20%	0.042	0.242	$1,211	$4,885	$3,867	$474
100%	0.209	1.209	$6,053	$24,425	$19,335	$2,369

Sources: The Cigarette Tax, The Federal Medicaid Match, and Economic Stimulus in South Carolina, Division of Research, University of South Carolina, 2003; Black and Ireys, 2006, Understanding Enrollment Trends and Participant Characteristics of the Medicaid Buy-In Program, 2003-2004.

TABLE II.2 THE ECONOMIC STIMULUS FROM ADDITIONAL MEDICAID EXPENDITURE

Average Medicaid Expenditures of Program Participants	
Per Member Per Month	Per Member Annually
$1,077	$12,924

Of the total expenditure, part is financed by the state and part by the Federal Government:		
Total	State Share	Federal Share
100%	0.3019	0.6981
$12,924	$3,902	$9,022

Medicaid Multipliers: an additional dollar of health care spending will yield:		
New Jobs	Additional Output	Additional Income
0.00003	1.58	0.75

Predicted Increase for each new Participant				
New Jobs	Additional Output	Additional Income	Additional Taxes	Net Increase in State Spending
0.362566	$20,401	$9,685	$939	$2,962

Sources: The Cigarette Tax, The Federal Medicaid Match, and Economic Stimulus in South Carolina, Division of Research, University of South Carolina, 2003; Black and Ireys, 2006, Understanding Enrollment Trends and Participant Characteristics of the Medicaid Buy-In Program, 2003-2004.

TABLE II.3 TOTAL ECONOMIC IMPACT OF THE MEDICAID FOR THE WORKING DISABLED PROGRAM

Portion of Participant Earnings Attributed to Enrolling	Additional Output	Additional Earnings	New Jobs	Net Change to State Revenue
0%	$222,781	$105,758	4	-$32,349
20%	$423,863	$359,777	17	-$7,709
27%	$494,242	$448,684	21	$915
50%	$725,486	$740,806	35	$29,251
100%	$1,228,192	$1,375,855	67	$90,851